

Variable	Control group		Experimental group	
	Mean	SD	Mean	SD
Age	21.5	1.2	21.8	1.1
Height	175.5	5.5	176.2	5.8
Weight	70.5	10.5	71.2	10.8
Pre-exercise heart rate (b/min)	72.5	8.5	73.2	8.8
Pre-exercise blood pressure (mmHg)	115.5	10.5	116.2	10.8
Pre-exercise blood glucose (mmol/L)	5.5	0.5	5.6	0.5
Pre-exercise blood lactate (mmol/L)	1.5	0.5	1.6	0.5
Pre-exercise blood urea (mmol/L)	3.5	0.5	3.6	0.5
Pre-exercise blood creatinine (mmol/L)	0.1	0.01	0.1	0.01
Pre-exercise blood cholesterol (mmol/L)	5.5	0.5	5.6	0.5
Pre-exercise blood triglycerides (mmol/L)	1.5	0.5	1.6	0.5
Pre-exercise blood HDL (mmol/L)	1.5	0.5	1.6	0.5
Pre-exercise blood LDL (mmol/L)	3.5	0.5	3.6	0.5
Pre-exercise blood VLDL (mmol/L)	0.5	0.1	0.5	0.1
Pre-exercise blood total lipids (mmol/L)	10.5	1.0	10.6	1.0
Pre-exercise blood total protein (g/L)	65.5	2.5	66.2	2.5
Pre-exercise blood albumin (g/L)	40.5	1.5	41.2	1.5
Pre-exercise blood globulin (g/L)	25.5	1.5	26.2	1.5
Pre-exercise blood total bilirubin (mmol/L)	0.2	0.02	0.2	0.02
Pre-exercise blood total bile acids (mmol/L)	0.1	0.01	0.1	0.01
Pre-exercise blood total amino acids (mmol/L)	1.5	0.1	1.6	0.1
Pre-exercise blood total fatty acids (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total carbohydrates (mmol/L)	5.5	0.5	5.6	0.5
Pre-exercise blood total minerals (mmol/L)	1.5	0.1	1.6	0.1
Pre-exercise blood total vitamins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total antioxidants (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total enzymes (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total hormones (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total neurotransmitters (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total cytokines (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total growth factors (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total signaling molecules (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total receptors (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total ligands (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total channels (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total transporters (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total pumps (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total ion exchangers (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total membrane proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total cytoplasmic proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total nuclear proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total mitochondrial proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total lysosomal proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total peroxisomal proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total Golgi apparatus proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total endoplasmic reticulum proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total plasma membrane proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total cell surface proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total extracellular matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total basement membrane proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total interstitial proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total connective tissue proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total bone matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total cartilage matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total ligament matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total tendon matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total muscle matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total skin matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total hair matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total nail matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total sweat gland matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total sebaceous gland matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total mammary gland matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total prostate gland matrix proteins (mmol/L)	0.5	0.05	0.5	0.05
Pre-exercise blood total testis matrix proteins (mmol/L)	0.5	0.05	0.5	0.05

What is claimed is:

1. A method treating virus-induced and inflammatory diseases of skin and membranes in humans or animals, comprising topical application of a composition comprising of one or more of the monounsaturated alcohols octadecenol, eicosenol, docosenol, and tetracosenol in a concentration of from 0.1 to 25 percent by weight in a physiologically compatible carrier to the inflamed skin or membrane of the patient to be treated.
2. The method of claim 1 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
3. The method according to claim 1 wherein the composition further comprises one or more of the mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
4. The method of claim 1 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
5. The method of claim 2 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

12. The method of claim 9 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
13. A method of treating humans or other mammals for viral infections, comprising intravenous introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.
14. The method of claim 13 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
15. The method of claim 13 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
16. The method of claim 13 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
17. The method of claim 14 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

18. The method of claim 15 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
19. A method of treating humans or other mammals for viral infections, comprising intramuscular introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.
20. The method of claim 19 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
21. The method of claim 19 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
22. The method of claim 19 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
23. The method of claim 20 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

24. The method of claim 21 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
25. A method of treating humans or other mammals for viral infections, comprising trans-mucus membranal introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.
26. The method of claim 25 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
27. The method of claim 25 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
28. The method of claim 25 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
29. The method of claim 26 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

36. The method of claim 33 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
37. A method of preventing or inhibiting the infection of humans or other mammals for viral infections, comprising intravenous introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.
38. The method of claim 37 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
39. The method of claim 37 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
40. The method of claim 37 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
41. The method of claim 38 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

42. The method of claim 39 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
43. A method of preventing or inhibiting the infection of humans or other mammals for viral infections, comprising intramuscular introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.
44. The method of claim 43 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
45. The method of claim 43 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
46. The method of claim 43 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
47. The method of claim 44 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

60. The method of claim 57 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
61. A physiologically compatible solution which can be injected into humans or other mammals for viral infections intravenously or intramuscularly consisting essentially of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible, intravenously or intramuscularly injectable carrier.
62. The method of claim 61 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x-$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
63. The method of claim 61 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x-$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
64. The method of claim 61 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
65. The method of claim 61 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

66. The method of claim 61 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
67. A physiologically compatible transdermal medication for introduction through the mucous membranes into humans or other mammals for viral infections consisting essentially of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols and a penetration-enhancing compound.
68. The method of claim 67 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.
69. The method of claim 67 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x-, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
70. The method of claim 67 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
71. The method of claim 68 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

78. The method of claim 75 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
79. An anti-viral suppository for trans-membranal introduction into the vagina or anus of a human or other mammal of a composition consisting essentially of one or more monounsaturated alcohols having from 18 to 24 carbons in a physiologically acceptable carrier which is a solid at ambient room temperature and which melts at approximately 37 °C.
80. The method of claim 79 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
81. The method of claim 79 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
82. The method of claim 79 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
83. The method of claim 80 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

84. The method of claim 81 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
85. A method of treating humans and mammals for viral infections comprising introducing a composition consisting essentially of one or more monounsaturated alcohols having from 18 to 24 carbons through a membrane into the circulatory system of a human or mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight comprising inserting such alcohol composition in a physiologically acceptable liquid, cream, gel or suppository carrier into the anus or vagina of the human or mammal to be treated.
86. The method of claim 85 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
87. The method of claim 85 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
88. The method of claim 85 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

